

1. What's a Key-Value (KV) database?
 - It is a non relational database that uses key-value methods to store data.
 - The KV databases are scalable and available
 - The disadvantage of the key-Value database is that it is suitable only for applications with single value and key.
2. Follow the following videos to deploy and use Redis and MySQL databases using GKE.
3. Follow the following video to set up sink and source Kafka connectors to the deployed MySQL database.

ENVIRONMENTS > DEFAULT > KAFKA 101 >

Cluster overview

Topics

Data Integration

- Clients
- Connectors
- API keys

Stream lineage

ksqlDB

Connectors

+ Add Connector

Search connectors

Connector name	Status	Category	ID	Plugin name	Tasks	Messages/sec	Bytes/sec	Messages behind	Messages
MySQLSource	Running	Source	lcc-388ko0	MySQLSource	1	0	168/s	0	0

Connect with popular connectors

Snowflake Sink

Google Cloud Storage Sink

Elasticsearch Service Sink

MongoDB Atlas Source

MongoDB Atlas Sink

Microsoft SQL Server CDC Source

Postgres CDC Source

Amazon Kinesis Source

See all connectors

```
1 {
2   "bootstrap_servers": "pkc-6ojv2.us-west4.gcp.confluent.cloud:9092",
3   "Api key": "GQAEM7WAJ2I3JGNV",
4   "Api secret": "UL4e7pbA4AddFs0bTDSHVxmC/HSiik2dDqRxaZUac3M5eJ3vWSMyfn89K6WgJ+II"
5 }
```

```

partition:0
key:
value:
{'id': 7, 'name': 'bob6', 'email': 'bob6@abc.com', 'department': 'sales', 'modified': 1647584608000}
-----

partition:0
key:
value:
{'id': 8, 'name': 'bob7', 'email': 'bob7@abc.com', 'department': 'sales', 'modified': 1647584608000}
-----

partition:0
key:
value:
{'id': 9, 'name': 'bob8', 'email': 'bob8@abc.com', 'department': 'sales', 'modified': 1647584608000}
-----

partition:0
key:
value:
{'id': 10, 'name': 'bob9', 'email': 'bob9@abc.com', 'department': 'sales', 'modified': 1647584608000}

```

```

value=[{'id':17,'name':"Ronaldo",'email':'Ronaldo@gmail.com','department':"Athlete",'modified':int(1000*time.time())}];
producer = KafkaProducer(bootstrap_servers=bootstrap_servers,security_protocol='SASL_SSL',sasl_mechanism='PLAIN',\
    sasl_plain_username=sasl_plain_username,sasl_plain_password=sasl_plain_password,value_serializer=lambda m: encode
    (m))
producer.send('ToMySQL', value);
producer.close();

```

```
mysql> select * from myDB.ToMySQL;
```

id	name	email	department	modified
15	user	test@gmail.com	IT	2022-03-18 14:07:11.270
16	Ashwin	test@gmail.com	IT	2022-03-18 14:07:44.801
17	Ronaldo	Ronaldo@gmail.com	Athlete	2022-03-18 14:16:07.695